# CLAIMS

What is claimed is:

1     1. A method for managing a transaction processing system, the method comprising:

2             defining at least one criterion which is at least a workload characteristic;

3             defining at least one threshold metric for each of the at least one criterion;

4             defining at least one trigger action in response to the at least one threshold metric;

5     and

6             performing the at least one trigger action in response to the at least one threshold

7     metric being met.

1     2. The method of claim 1, wherein the defining at least one criterion step includes

2     defining at least one of a system level criterion and a transaction level criterion.

1     3. The method of claim 1, wherein the defining at least one trigger action step includes

2     defining at least one of a system level trigger action and a transaction level trigger action.

1     4. The method of claim 1, wherein the at least one criterion includes at least one of a

2     processor utilization characteristic, memory utilization characteristic, an input/output

3     characteristic, a storage characteristic, and a network interface characteristic.

1   5. The method of claim 1, wherein defining at least one threshold metric includes

2   defining at least one of a single and a progressive variable relative to a measurement of

3   an aspect of the transaction processing system.


1   6. The method of claim 1, further including repeating each of the steps at predefined

2   intervals.


1   7. The method of claim 1, wherein the at least one trigger action includes at least one of

2   changing the priority of a transaction, terminating a transaction, delaying a transaction,

3   quiescing a transaction, causing another system to stop forwarding transactions,

4   triggering routing of transactions to a different system, and ending a process.


1   8. The method of claim 1, further comprising:

2           defining at least one transaction identifier that identifies subsets of transactions;

3   and

4           defining at least one transaction level threshold metric associated with the at least

5   one transaction identifier.


1   9. The method of claim 8, wherein the performing step performs the at least one trigger

2   action on a transaction associated with the at least one transaction identifier.

1        10. The method of claim 9, wherein the performing step performs when the at least one

2        transaction level threshold metric is met.


1        11. The method of claim 8, further comprising:

2           defining a system level threshold metric; and

3           associating the system level threshold metric with the at least one transaction

4        identifier and with the at least one transaction level threshold metric.


1        12. The method of claim 11, wherein the performing step is only performed when both

2        the system level threshold metric and the transaction level threshold metric are met.


1        13. The method of claim 8, wherein the defining at least one transaction identifier

2        includes defining a transaction group identifier.


1        14. The method of claim 1, wherein the defining at least one threshold metric defines a

2        transaction group level metric.


1        15. The method of claim 1, further comprising the steps of:

2           loading runtime parameters;

3           validating the runtime parameters; and

4           terminating processing if the parameters are deemed unacceptable.

1      16. The method of claim 1, further comprising:

2          acquiring a transaction list of currently executing transactions;

3          collecting details for each of the currently executing transactions;

4          evaluating transaction details against an interval criterion matrix which defines

5    thresholds associated with the currently executing transactions; and

6          performing actions when the evaluation step determines a threshold has been met.


1      17. The method of claim 1, further comprising:

2          acquiring a list of aggregate transaction groups;

3          collecting details for each aggregate transaction group;

4          evaluating each aggregated transaction group details against an interval criterion

5    matrix which defines thresholds associated with each aggregated transaction group; and

6          performing actions when the evaluation step determines a threshold has been met.


1      18. The method of claim 1, further comprising collecting data on the status of the

2    transaction processing system, wherein the collecting is performed by one of executable

3    collection logic and interpretable definitions.


1      19. A method of managing a system, comprising the steps of:

2          determining current conditions of a workload characteristic;

3          evaluating the current conditions of the workload characteristic; and

4 dynamically adjusting system administration criteria based on a threshold metric

5 associated with the current conditions of the workload characteristic.

1 20. The method of claim 19, wherein the workload characteristic is at least one of a

2 transaction workload characteristic and a system environment workload characteristic.

1 21. The method of claim 19, wherein the workload characteristic is a transaction

2 processing system characteristic.

1 22. The method of claim 19, wherein the adjusting includes at least one of changing the

2 priority of a transaction, terminating a transaction, delaying a transaction, quiescing a

3 transaction, causing another system from forwarding transactions, triggering routing of

4 transactions to a different system, and ending a process.

1 23. The method of claim 19, further comprising the steps of:

2  defining a system level threshold metric associated with the workload

3 characteristic;

4  defining at least one transaction identifier that identifies subsets of transactions;

5  defining at least one transaction level threshold metric associated with the at least

6 one transaction identifier and a transaction workload characteristic; and

7  associating the system level threshold metric with the at least one transaction

8 identifier and with the at least one transaction level threshold metric.

1    24. The method of claim 23, wherein the dynamically adjusting step is only performed

2    when both the system level threshold metric and the transaction level threshold metric are

3    met.


1    25. The method of claim 23, wherein the dynamically adjusting step is only performed

2    when at least one of the system level threshold metric and the transaction level threshold

3    metric is met.


1    26. A system for managing a transaction processing system, the system comprising:

2    a means for defining at least one criterion, wherein the at least one criterion is a

3    workload characteristic of the transaction processing system;

4    a means for defining at least one threshold metric for each of the at least one

5    criterion; and

6    a means for defining at least one trigger action in response to the at least one

7    threshold metric.


1    27. The system of claim 26, further comprising:

2    a means for defining at least one transaction identifier that identifies subsets of

3    transactions;

4    a means for defining at least one transaction level threshold metric associated with

5    the at least one transaction identifier;

6    a means for defining a system level threshold metric; and

7               a means for associating the system level threshold metric with the at least one

8          transaction identifier and with the at least one transaction level threshold metric.


1          28. The system of claim 26, further comprising:

2               a means for loading runtime parameters;

3               a means for validating the runtime parameters; and

4               a means for terminating processing if the parameters are deemed unacceptable.


1          29. The system of claim 26, further comprising:

2               a means for acquiring a transaction list of currently executing transactions;

3               a means for collecting details for each of the currently executing transactions;

4               a means for evaluating transaction details against an interval criterion matrix

5          wherein the interval criterion matrix defines thresholds associated with the currently

6          executing transactions; and

7               a means for performing threshold actions when the evaluation step determines a

8          threshold has been met.


1          30. The system of claim 26, further comprising a criterion matrix, wherein the criterion

2          matrix comprises:

3                   a system level metric entry that provides a system level threshold for a

4          system level workload characteristic;

5        a transaction identifier entry that provides an identification for one of a

6        transaction and a transaction group;

7        a transaction level metric entry that provides a transaction level threshold

8        for transaction type defined by the transaction identifier; and

9        a facility action entry for identifying logic to be executed if at least one of

10        the system level threshold and the transaction level threshold is met.

1        31. The system of claim 26, further comprising a means for performing the at least one

2        trigger action in response to the at least one threshold metric being met.

1        32. A system for managing a transaction processing system, comprising:

2        a means for determining current conditions of at least a workload characteristic;

3        a means for evaluating the current conditions of at least the workload

4        characteristic; and

5        a means for dynamically adjusting system administration criteria based on a

6        threshold metric associated with the current conditions of at least the workload

7        characteristic.

1        33. The system of claim 32, wherein the at least one workload characteristic is at least

2        one of a transaction workload characteristic and a system environment workload

3        characteristic.

1     34. The system of claim 32, wherein the at least one workload characteristic is a

2     transaction processing system characteristic.


1     35. The system of claim 32, wherein the means for dynamically adjusting provides for at

2     least one of changing the priority of a transaction, terminating a transaction, delaying a

3     transaction, quiescing a transaction, causing another system to stop forwarding

4     transactions, triggering routing of transactions to a different system, and ending a

5     process.


1     36. The system of claim 32, further comprising the steps of:

2     a means for defining a system level threshold metric associated with the workload

3     characteristic;

4     a means for defining at least one transaction identifier that identifies subsets of

5     transactions;

6     a means for defining at least one transaction level threshold metric associated with

7     the at least one transaction identifier and a transaction workload characteristic; and

8     a means for associating the system level threshold metric with the at least one

9     transaction identifier and with the at least one transaction level threshold metric.


1     37. The system of claim 36, wherein the means for dynamically adjusting adjusts the

2     system administration criteria when both the system level threshold metric and the

3     transaction level threshold metric are met.

1      38. The system of claim 36, wherein the means for dynamically adjusting provides for

2      only adjusting when at least one of the system level threshold metric and the transaction

3      level threshold metric is met.


1      39. A computer program product comprising a computer usable medium having readable

2      program code embodied in the medium, the computer program product includes:

3      a first computer code to define at least one criterion, wherein the at least one

4      criterion is a workload characteristic of the transaction processing system;

5      a second computer code to define at least one threshold metric for each of the at

6      least one criterion;

7      a third computer code to define at least one trigger action in response to the at

8      least one threshold metric; and

9      a fourth computer code to perform the at least one trigger action in response to the

10     at least one threshold metric being met.